

Alex Chung Coffee Crack Journal

Week 1 Journal

Monday 2015/01/05

Start Time	Task	Description	Lesson Learned	Assisted By/Assisted	End Time
1:00PM	Rental of equipment, Starting Project	<ul style="list-style-type: none"> - Rented equipment from Colin - Prior to today. Friday, January 2, 2015. Had a meeting with our sponsor Michael and ITCS Graduate Chris. Discussed the various software and hardware options we could use. - Continued further research into potential hardware based on budget. - With Jordan and Jon, we are considering a laptop over a mini-PC to use for our project. 			3:00PM

Wednesday 2015/01/07

Start Time	Task	Description	Lesson Learned	Assisted By/Assisted	End Time
1:00PM	Research Hardware + software. Kick-Off Meeting Scheduled Today.	<ul style="list-style-type: none"> - Considering the usage of rainbow keys to assess/crack passwords. * Some other considerations of password cracking software are, THC Hydra, John the Ripper and AirCrack. * Looking up oclHashCat, Which is rated as a "fast" password assessor. - We are also considering the use of an external hard drive for storage and potential I/O outputs. - We want to have hardware decided by this week before our next meeting with Michael. * Minor issues regarding hardware decisions due to pricing AND quality. The decision of the hardware may take an additional day. - 14:00PM: Kick-Off Meeting is scheduled with Colin Chamberlain. * Discussed and reviewed the project, and several other aspects. * Went over the Gantt, Charter and Agenda and make any corrections. * Discussed Intellectual 			3:00PM

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		<p>property and potential budget.</p> <p>* Assign goals for each week to ensure that there is something to look forward to every week.</p> <p>- I have to prepare within 21 days the next meeting request and agenda.</p> <p>14:30PM</p> <p>- Scheduled a meeting with Michael for a second kick-off meeting.</p> <p>- Discussed budget</p> <p>- Discussed hardware decisions and software choices.</p> <p>- Went over a method to choose hardware.</p> <p>- Re-discussed Intellectual property and confidentiality.</p> <p>- Will be receiving emails of readings and hardware choices.</p>			
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Week 2

Monday 2015/01/12

Start Time	Task	Description	Lesson Learned	Assisted By/Assisted	End Time
12:00PM	Decide on hardware and review readings from Michael	<p>- Going over hardware choices that Michael sent us via email. We plan on getting hardware decided on THIS week.</p> <p>- Review all the readings that Michael has supplied us for this project.</p> <p>13:30PM</p> <p>- Decided on a Lenovo laptop costing around \$600.</p> <p>http://www.ncix.com/detail/lenovo-thinkpad-edge-e545-a6-5350m-5c-93689-1205.htm</p> <p>- Reviewing the software we will be using to see if it is compatible.</p> <p>Also decided to crack both NTML (Active directory) passwords AND MD5 Hashes</p> <p>- Gone over various readings and figuring out a method to print out statistics.</p> <p>14:32PM</p> <p>- Updating Gantt chart.</p> <p>- Also considering researching the efficiency method.</p>			2:50PM

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Wednesday January 14, 2015

Start Time	Task	Description	Lesson Learned	Assisted By/Assisted	End Time
1:00PM	Further research into energy efficiency and consumption	<ul style="list-style-type: none">-Lenovo laptop has been ordered. Rough estimation to arrive to us will be this week or next week.-Continued the research and started research on energy efficiency and various other aspects. Re-update the gantt chart and figure out how to make a concurrent task.-Found information regarding heat output, approximate power usage for the laptop. This information can be used to compare the end result of our project.- Troubleshoot several website issues with Jonathan.			3:30PM

Thursday January 15 2015

Start Time	Task	Description	Lesson Learned	Assisted By/Assisted	End Time
11:30AM	Laptop pick-up scheduled	- Scheduled to pick up the ordered laptop from Michael next Wednesday at 10:15AM			11:40AM

Week 3 Journal

Monday, January 19, 2015

Start Time	Task	Description	Lesson Learned	Assisted By/Assisted	End Time
12:00PM	Learn to use Hashcat.	<ul style="list-style-type: none">- Looking up ways to learn and understand how oclHashcat works. Attempting to run it on a Ubuntu VM however no luck as it does not work with intel devices. Must be specific to AMD or Nvidia to function properly.- Laptop has arrived to Michael, waiting until Wednesday to pick it up.- Still have yet to figure out how to do concurrent tasks for the gantt chart.			2:30PM

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Wednesday, January 21, 2015

Start Time	Task	Description	Lesson Learned	Assisted by/Assisted	End Time
10:15AM	Pick-Up Laptop	- Meet with Michael and pick up the ordered laptop for our project.			10:17AM

Start Time	Task	Description	Lesson Learned	Assisted By/Assisted	End Time
12:20AM	Check Laptop and reimage the OS.	<ul style="list-style-type: none"> - Check the laptop and ensure functionality. Plans to re-image from Kali-linux that was installed to Ubuntu 14.05. - Re-email Joe Petermann regarding IP and Confidentiality forms. - Creating the agenda for the first progress meeting which will be scheduled Wednesday, Jan 28. 			2:50PM

Week 4 Journal

Monday, January 26, 2015

Start Time	Task	Description	Lesson Learned	Assisted by/Assisted	End Time
12:00PM	Update Gantt, Finish preparing Agenda.	<ul style="list-style-type: none"> - Update the gantt chart to reflect our progress. - Figured out a work around to concurrent tasks for Microsoft project. - Finished a rough draft of the Progress meeting agenda for this Wednesday. *Distributed it to team members to look over before the meeting. <p>13:09PM</p> <ul style="list-style-type: none"> - Generating our own test material in NTLM hashes. * Using tobtu.com to generate the hashes. * Generating roughly 50 hashes of random passwords I come up with and run it against oclhashcat. * Attempting to get numbers and test methods with Jordan using oclhashcat * Researching methods to get an outfile report with oclhashcat ** Requires the input method from Jordan before I can do anything with the outfile. 	<ul style="list-style-type: none"> - Concurrent tasks require a start time and finish. Add a lag with start to start for a rough concurrent task. - Line-length exception could be based on format of the text file. Change it to hash to avoid it. 		2:50PM

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		14:34PM - Success with Jordan in cracking a single hash, however running into an issue with using an input file using NTLM hashes. Getting a "line-length exception".			
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Wednesday, January 28, 2015

Start Time	Task	Description	Lesson Learned	Assisted by/Assisted	End Time
12:30PM	Update Gantt, Figure out an output file format to serve as a report. Progress Meeting #1	Updating Gantt for the first progress meeting scheduled later today. Format could be done via PHP or use a pre-defined format done by Hashcat. - Format however we may want to port into html. - An out-of-scope idea, get users to make up a password on the spot and enter it in during the showcase. Automatically hashes it and tries to crack it. Progress Meeting #1 3:15PM – 3:45PM - Went over Journal, Minutes and Agenda. - Discussed the current progress. - Went over issues and assigned action items. - Received keys to the room and policies regarding keys. - Assigning new chair and scribe for the next progress meeting.			3:50PM

Week 5 Journal

Monday, February 2, 2015

Start Time	Task	Description	Lesson Learned	Assisted by/Assisted	End Time
12:45PM	Heavily Format Journal	- Heavily formatted my progress journal based off of suggestions made in the previous progress meeting. - review the hashcat-utils page to figure out large wordlist cracking. * Lookup "splitlen" function. - Emailed Michael regarding previous meeting deadlines. Will be receiving hash list today. - Write a biography about myself later for Jon to upload to the Project site.	- Formatting a table in word is more difficult, use excel or access in the future.		2:50PM

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Wednesday, February 4, 2015

Start Time	Task	Description	Lesson Learned	Assisted By/Assisted	End Time
13:30PM	Test new hash list and figure out splitlen	<ul style="list-style-type: none"> - Received a temporary hashlist from Michael. Attempting to crack it and try to figure out splitlen. - Awaiting for the actual hashlist later tonight. - Attempting to crack defcon hash list, however it has crashed twice with two different word lists. - Attempted splitlen, using the large wordlist. Works however excessively slow due to transferring 15GBs of words into an empty directory.k 	<ul style="list-style-type: none"> - Do not use TeamViewer when trying to crack the passwords. It will crash the laptop. 		3:17PM

Week 6

Monday, February 09, 2015

Start Time	Task	Description	Lesson Learned	Assisted By/Assisted	End Time
12:30PM	Showcase booth selection, Attempt more hash cracking	<ul style="list-style-type: none"> - Selection of showcase booth. We have chosen #12, #11 and #13. - Received and uploaded the new hash list received from Michael. - Managed to crack 34.56% of the hashes. Figuring out how to output usernames as well to the outfile. - Trying to figure out the problem with the CPU and GPU usage. - Experimenting with functions of hashcat when cracking. - Difficulty figuring out the output format. 		Jordan	2:50PM

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Wednesday, February 11, 2015

Start Time	Task	Description	Lesson Learned	Assisted By/Assisted	End Time
12:00PM	More Testing of outfile format.	<ul style="list-style-type: none"> - More experimenting regarding the outfile format and using it to generate a report. - Attempting to use a -show command on the outfile will generate a line-length exception error. - To generate proper outfile, use the show command and username command on the file we used to crack. Not the outfile. - Appended outfile into a new txt file to test formats. - Helped Jon with small formatting issues with the website - Thinking of writing a script to format the outfile into a report as it is colon delimited. 	Always disable or remove the .pot file before cracking!	Assisted: Jon	2:50PM

Week 7

Monday, February 23, 2015

Start Time	Task	Description	Lesson Learned	Assisted By/Assisted	End Time
12:09PM	Write Autobiography for PROJ site. Review previous tasks and return to work on project.	<ul style="list-style-type: none"> - Write the autobiography for Jon so he can update the PROJ site. - Help jon understand oclHashCat - finished writing the rough draft autobiography around 2:00PM. - Went over various ways to format the report including automated script and generate it in HTML format. - attempting to look over energy consumption methods. 		Assisted: Jon	2:50PM

Wednesday, February 25, 2015

Start Time	Task	Description	Lesson Learned	Assisted by/Assisted	End Time
1:00PM	Progress Meeting #2 Testing and Gannt chart issue resolved	<ul style="list-style-type: none"> - Scheduled progress meeting today - Fixed Gannt chart printing the % completed on the other pages - Attempting to test cracking with default hashcat's default masks. - Attempted to crack using a mask such as ?a?a?a under attack mode #6, no success 	- Page layout and margins matter when printing. Modify those in the future to fix any "printing" issues.		4:00PM

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		<ul style="list-style-type: none"> - Progress Meeting #2 - Went over current progress - Addressed certain issues regarding masks and site - assigned several action items. - Receiving user groups from Michael later. - Comparison between two different systems and write down statistics. 			
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Week 8

Monday, March 02, 2015

Start Time	Task	Description	Lesson Learned	Assisted By/ Assisted	End Time
9:10AM	Email Michael about user groups/permissions for hashlist.	<ul style="list-style-type: none"> - emailed Michael regarding the user groups/permissions file for the hashlist from the previous meeting. - Expected date is before Friday of THIS week. 			9:12:AM

Start Time	Task	Description	Lesson Learned	Assisted By/ Assisted	End Time
12:00PM	Upload Journal for site. Continue to research mask attacks	<ul style="list-style-type: none"> - Uploaded my journal for use on the project site. - modified my journal slightly to reflect times. - Continued research into maks_attacks and creating a mask for our project. - Managed to get possible progress regarding masks. - Using -I (the increment switch) to set min and max increments while setting a 13 length mask using ?a (all characters) and running a full test. - Testing is approx.. 20-30 mins. 			2:50PM

Tuesday, March 03, 2015

Start Time	Task	Description	Lesson Learned	Assisted By/ Assisted	End Time
1:50PM	Verify test of cracking.	<ul style="list-style-type: none"> - The laptop randomly rebooted itself. - Had to rerun the test. 			1:55PM

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Wednesday, March 04, 2015

Start Time	Task	Description	Lesson Learned	Assisted By/Assisted	End Time
12:00PM	Re-verified Test, Consideration of new methods	<ul style="list-style-type: none"> - The laptop did not restart this time. The test ran for 20 hours and only cracked 192 passwords and is still running. - We are considering trying a new method that is quicker and still efficient. - Now testing it without a dictionary. Going straight with a mask and increments. - Test proven not as well, and it froze. - New software update for the laptop is messing with the disk check. - New kernel update may have something to do with this. - Now attempting the test with reversed inputs. 			2:55PM

Thursday, March 05, 2015

Start Time	Task	Description	Lesson Learned	Assisted By/Assisted	End Time
11:50AM	Verify the test again.	<ul style="list-style-type: none"> - Re-verified the test started yesterday. - 20 hours and cracked more than the previous. Running it over the weekend to see results if possible.			11:55AM

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Week 9

Monday, March 09, 2015

Start Time	Task	Description	Lesson Learned	Assisted By/Assisted	End Time
12:00PM	Re-verify test. Stopped test.	<ul style="list-style-type: none"> - Checked the test after 4 days running. Only cracked 286. We stopped the test as it would take to long. - Now considering assuming placeholders for certain positions. - Testing gpu-accel and gpu-loops and seeing if it makes a difference with mask attacks. - Additional heat is generated so it is doing it. No difference in the processing however. - Running an MD5 test. 			2:50PM

Wednesday, March 11, 2015

Start Time	Task	Description	Lesson Learned	Assisted by/Assisted	End Time
12:30PM	Check on test, look into benchmarking and possible rainbow tables.	<ul style="list-style-type: none"> - Checked the test. 126/2000 MD5 hashes. - Looking into benchmarking it for performance. - Talked to Tim regarding methods and suggested rainbow tables. May look into that as well. - Attempted more gpu accel. It crashed - Testing has crashed the computer multiple times. Experimenting what numbers will do what and results. - Running ONLY a mask attack and comparing time. New method IS required as hybrid is taking to long based on the wordlist we used. 	Do not bump gpu-accel to 160. Otherwise it will crash.		2:50PM

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Week 10

Monday, March 16, 2015

Start Time	Task	Description	Lesson Learned	Assisted By/Assisted	End Time
12:00PM	Check the mask attack.	<ul style="list-style-type: none">- Checked the mask attack progress. 291 cracked which is around 30%.- Whole purpose after giving it some thought: To crack as many passwords in a given timeframe and compare.- Attempted to come up with a 13 character mask. Did not work, approx. time to complete: over 10 years.- Testing cracking with oclhashcat with Maskprocessor piped into it. Hoping it gets more and in a shorter period of time.- Test froze the laptop. Had to restart it.			2:50PM

Wednesday, March 18, 2015

Start Time	Task	Description	Lesson Learned	Assisted By/Assisted	End Time
12:00PM	More testing	<ul style="list-style-type: none">- ran a few more tests and to get the original percentage of the file.- Meeting scheduled for next Wednesday- Minor break to work on other things.			2:50PM

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Week 11

Monday, March 23, 2015

Start Time	Task	Description	Lesson Learned	Assisted By/Assisted	End Time
12:00PM	Make a mask file, Huge progress	<ul style="list-style-type: none"> - Made a hcmask file and made our own masks. - Ran a mask attack, less than 3 minutes 200 some hashes CRACKED. - Huge success. - Laptop however keeps crashing. - Removed teamviewer, 1 less process to deal with. - Coming up with different masks. - Asked Jon to come up with more combinations to test against. 	Only use the -a option for small passwords. Long passwords will take too long, come up with a mask anything 5 and over.	Assisted by: Jon	2:50PM

Tuesday, March 23, 2015

Start Time	Task	Description	Lesson Learned	Assisted By/Assisted	End Time
8:20AM	Verify test, do an MD5 test	<ul style="list-style-type: none"> - NTLM test stopped at the 9th mask abnormally. 35% cracked. 3% higher than before. - Had to reboot the Laptop due to some freezing issues ending the hashcat process. - Started an MD5 test to check tomorrow. 			8:35AM

Wednesday, March 25, 2015

Start Time	Task	Description	Lesson Learned	Assisted By/Assisted	End Time
12:00PM	Verify MD5 test, Progress meeting.	<ul style="list-style-type: none"> - Verified the MD5 test. Stops at the 9th mask. Cracked 140/2000 MD5 hashes. - Progress meeting today at 3:15PM - Testing various other things with Jordan. - Meeting ended. Timeline, progress and issues were brought up. 			3:45PM

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Week 12

Monday, March 30, 2015

Start Time	Task	Description	Lesson Learned	Assisted By/Assisted	End Time
12:00PM	Attempt markov attacks using statprocessor	<ul style="list-style-type: none"> - Looked up markov attacks. - Installed statsprocessor and run a test. <p>The test is taking longer than usual. Left it over night.</p> <ul style="list-style-type: none"> - went over some table of contents format for the final report with Jon. - Helped Jon review the final report 		Assisted Jon	3:30PM

Tuesday, March 31, 2015

Start Time	Task	Description	Lesson Learned	Assisted By/Assisted	End Time
8:00AM	Redo the markov attack	<ul style="list-style-type: none"> - Rerun the test using a mask as the process was taking to long. - Note: The CPU/GPU usage is massive when statsprocessor is running. 			8:30AM

Wednesday, April 01, 2015

Start Time	Task	Description	Lesson Learned	Assisted By/Assisted	End Time
12:00PM	More research into markov + possible rule sets. Wrap up meeting	<ul style="list-style-type: none"> - Came back to find out the laptop bricked. - Statprocessor made an 896G file... - Putted in and deleted the file. Hopefully solved the issue. - May scrap markov and possibly rule based attacks and stick with the current methods as it may be more efficient. - Started working on the User Manual - Had the wrap up meeting today. Contact Michael regarding some matters. 	Don't run statsprocessor for too long. It will create an 896G file which WILL break the laptop. Use a better limit for this.		3:26PM